



Patent PD-201150 Customer No. 020991

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Ernest C. Chen

10/692,491

Filed:

Serial No.:

October 24, 2003

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Georgann S. Grunebach

Typed or printed name of person signing certificate

Group Art Unit: 2

2616

Examiner:

PHAM, Chi H.

Date: April 3, 2006

## INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

The references cited on the enclosed form PTO/SB/08A may be relevant or material to the examination of the above-identified patent application and are, therefore, submitted in compliance with the duty of disclosure defined in 37 CFR 1.56. It is respectfully requested that the references be considered and made of record in the application identified above.

This statement should be considered because it is being submitted before the mailing of a first Office action on the merits under 37 C.F.R. §1.97(b)(3). Accordingly, it is submitted that no fee is due in this matter.

However, if it is determined that any appropriate fee is due, the Commissioner is hereby authorized to charge Deposit Account No. 50-0383 of Hughes Electronics Corporation, El Segundo, California.

This Information Disclosure Statement is not to be construed as a representation that a search has recently been made, that additional information material to the examination of this application does not exist, or that this citation constitutes prior art.

| Serial No. 10 | 10/692,491Pa | age | 2 |
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Respectfully submitted,

By:

Georgann S. Grunebach, Reg. No. 33,179

The DIRECTV Group, Inc. RE/R11/A109 P. O. Box 956 El Segundo, CA 90245

Telephone No. (310) 964-4615

April 3, 2006

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| Application Number     | 10/692,491       |  |
|                        |                  |  |
| Filing Date            | October 24, 2003 |  |
| First Named Inventor   | Ernest Chen      |  |
| Art Unit               | 2616             |  |
| Examiner Name          | PHAM, Chi H.     |  |
| Attorney Docket Number | PD-201150        |  |

|  | U.S. PATENT DOCUMENTS                            |                                   |                                       |  |   |  |
|--|--|-----------------------------------|---------------------------------------|--|---|--|
| Examiner<br>Initials*                              | Cite<br>No.                                      | Document Number  Number-Kind Code | Publication<br>Date<br>MM-DD-<br>YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns,<br>Lines, Where<br>Relevant Passages or<br>Relevant Figures<br>Appear |  |
|  | T  | LIC T 000 004                     | 00 1007                               | Themesotol   |   |  |
|  |  | US-5,603,084                      | 02-1997<br>05-2002                    | Henry et al. Schilling, Donald L.                  |   |  |
|  |  | US-6,389,002                      |                                       | Suzuki et al.                                      |   |  |
|  | <del>                                     </del> | US-6,178,158                      | 01-2001                               | Yakhnich et al.                                    |   |  |
|  | <del> </del>                                     | US-6,731,700                      | 05-2004                               |  |   |  |
|  |  | US-6,411,797                      | 06-2002                               | Estinto, Eugene                                    |   |  |
|  |  | US-2002/0071506                   | 06-2002                               | Lindquist et al. Tsujimoto, Ichiro                 | · · · · · · · · · · · · · · · · · · ·   |  |
| <del>- · · · · · · · · · · · · · · · · · · ·</del> |  | US-5,493,307                      | 02-1996<br>09-1999                    | Goldston et al.                                    |   |  |
|  | <del> </del>                                     | US-5,956,373                      |                                       |  |   |  |
| .,,  |  | US-6,535,497                      | 03-2003                               | Raith, Alex Krister                                |   |  |
|  |  | US-6,515,713                      | 02-2003                               | Nam, Ho Jun  |   |  |
|  |  | US-6,320,919                      | 11-2001                               | Khayrallah et al.                                  |   |  |
|  |  | US-3,974,449                      | 08-1976                               | Falconer, David Duncan                             |   |  |
| •  |  | US-3,879,664                      | 04-175                                | Monsen, Peter                                      |   |  |
|  |  | US-4,253,184                      | 02-1981                               | Gitlin et al.                                      |   |  |
|  |  | US-5,233,632                      | 08-1993                               | Baum et al.  |   |  |
|  |  | US-6,775,521                      | 08-2004                               | Chen, Yue  |   |  |
|  |  | US-3,878,468                      | 04-1975                               | Falconer et al.                                    | -   |  |
|  |  | US-2004/0110467                   | 06-2004                               | Wang, Arthur W.                                    |   |  |
|  |  | US-6,535,801                      | 03-2003                               | Geier et al.                                       |   |  |
|  |  | US-6,325,332                      | 12-2001                               | Cellier et al.                                     | ·   |  |
|  |  | US-6,052,586                      | 04-2000                               | Karabinis, Peter D.                                |   |  |
|  |  | US-5,995,832                      | 11-1999                               | Mallinckrodt, Albert J.                            |   |  |
|  |  | US-2005/008100                    | 01-2005                               | Chen, Ernest C.                                    |   |  |
|  |  | US-2002/176516                    | 11-2002                               | Jeske et al.                                       |   |  |
|  |  | US-6,304,594                      | 10-2001                               | Salinger, Sheldon Norman                           |   |  |
|  |  | US-5,579,344                      | 11-1996                               | Namekata, Minoru                                   |   |  |
|  |  | US-5,121,414                      | 06-1992                               | Levine et al.                                      |   |  |
|  |  | US-6,144,708                      | 11-2000                               | Maruyama, Hidenori                                 |   |  |
|  |  | US-6,055,278                      | 04-2000                               | Ho et al.  |   |  |

| Examiner  | ` | Date       |
|-----------|---|------------|
| Signature |   | Considered |
|           |   |            |

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

| Substitute for forms PTO/SB/08A and | Complete if Known      |                  |   |
|-------------------------------------|------------------------|------------------|---|
| PTO/SB/08B                          | Application Number     | 10/692,491       |   |
| INFORMATION DISCLOSURE              | Filing Date            | October 24, 2003 |   |
| STATEMENT BY APPLICANT              | First Named Inventor   | Ernest Chen      | _ |
|                                     | Art Unit               | 2616             |   |
|                                     | Examiner Name          | PHAM, Chi H.     |   |
| Sheet 2 of 5                        | Attorney Docket Number | PD-201150        |   |
| Sheet 2 of 5                        |                        |                  |   |

|                       | U.S. PATENT DOCUMENTS |                                   |                                       |  |   |  |
|-----------------------|-----------------------|-----------------------------------|---------------------------------------|--|---|--|
| Examiner<br>Initials* | Cite<br>No.           | Document Number  Number-Kind Code | Publication<br>Date<br>MM-DD-<br>YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns,<br>Lines, Where<br>Relevant Passages or<br>Relevant Figures<br>Appear |  |
| <u> </u>              | . <del></del>         |                                   |                                       |  |   |  |
|                       |                       | US-6,330,336                      | 12-2001                               | Kasama, Minoru                                     |   |  |
|                       |                       | US-6,718,184                      | 04-2004                               | Aiken et al.                                       |   |  |
|                       |                       | US-5,819,157                      | 10-1998                               | Ben-Efraim et al.                                  |   |  |
|                       |                       | US-5,999,793                      | 12-1999                               | Ben-Efraim et al.                                  |   |  |
|                       |                       | US-6,297,691                      | 10-2001                               | Anderson et al.                                    |   |  |
| 1                     |                       | US-6,501,804                      | 12-2002                               | Dietmar et al.                                     |   |  |
|                       |                       | US-6,745,050                      | 06-2004                               | Forsythe et al.                                    |   |  |
|                       |                       | US-5,625,640                      | 04-1997                               | Palmer et al.                                      |   |  |
|                       |                       | US-6,597,750                      | 07-2003                               | Knutson et al.                                     |   |  |
|                       |                       | US-6,433,835                      | 08-2002                               | Hartson et al.                                     |   |  |
|                       |                       | US-4,800,573                      | 01-1989                               | Cupo, Robert L.                                    |   |  |
|                       |                       | US-6,266,534                      | 07-2001                               | Raith et al.                                       |   |  |
| 2                     |                       | US-5,467,197                      | 11-1995                               | Hoff, Don G.                                       |   |  |
|                       |                       | US-6,574,235                      | 06-2003                               | Arslan et al.                                      |   |  |
|                       |                       | US-5,430,770                      | 07-1995                               | Abbey  |   |  |
|                       |                       | US-5,966,412                      | 10-1999                               | Ramaswamy  | ·   |  |
|                       |                       | US-5,329,311                      | 07-1994                               | Ward et al.  |   |  |
|                       |                       | US-5,450,623                      | 09-1995                               | Yokoyama et al.                                    |   |  |
|                       |                       | US-5,966,186                      | 10-1999                               | Shigihara et al.                                   |   |  |
|                       |                       | US-6,028,894                      | 02-2000                               | Oishi et al.                                       |   |  |
|                       |                       | US-6,032,026                      | 02-2000                               | Seki et al.  |   |  |
|                       |                       | US-6,034,952                      | 03-2000                               | Dohi et al.  |   |  |
|                       |                       | US-6,108,374                      | 08-2000                               | Balachandran et al.                                |   |  |
|                       |                       | US-6,140,809                      | 10-2000                               | Doi  |   |  |
|                       |                       | US-6,219,095                      | 04-2001                               | Zhang et al.                                       |   |  |
|                       |                       | US-4,039,961                      | 08-1977                               | Ishio et al.                                       |   |  |
|                       |                       | US-6,275,678                      | 08-2001                               | Bethscheider et al.                                |   |  |
|                       |                       | US-3,383,598                      | 05-1968                               | Sanders  |   |  |
|                       |                       | US-5,577,087                      | 11-1996                               | Furuya   |   |  |

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|-----------|------------|--|
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|           |            |  |

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| Sheet 3 of 5                        | Attorney Docket Number | PD-201150        |  |

|                       | U.S. PATENT DOCUMENTS |                  |                     |  |  |  |
|-----------------------|-----------------------|------------------|---------------------|--|--|--|
| Examiner<br>Initials* | Cite<br>No.           | Document Number  | Publication<br>Date | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns,<br>Lines, Where                    |  |
| •                     |                       | Number-Kind Code | MM-DD-<br>YYYY      |  | Relevant Passages or<br>Relevant Figures<br>Appear |  |
|                       |                       | US-5,602,868     | 02-1997             | Wilson   | <u> </u>   |  |
|                       |                       | US-5,815,531     | 09-1998             | Dent   |  |  |
|                       |                       | US-5,960,040     | 09-1999             | Cai et al.   |  |  |
|                       |                       | US-6,987,068     | 11-1999             | Cassia et al.                                      |  |  |
|                       |                       | US-5,963,845     | 10-1999             | Floury et al.                                      |  |  |
|                       |                       | US-2002/0094015  | 07-2002             | Harles et al.                                      |  |  |

|                       |             | FO   | <b>REIGN PATEN</b>                    | T DOCUMENTS  |  |   |
|-----------------------|-------------|--|---------------------------------------|--|--|---|
| Examiner<br>Initials* | Cite<br>No. | Foreign Patent Document Country Code-Number- | Publication<br>Date<br>MM-DD-<br>YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns,<br>Lines, Where<br>Relevant<br>Passages or | T |
| ,                     |             | Kind Code                                    |                                       |  | Relevant Figures Appear                                    |   |
|                       |             | EP 0929164                                   | 07-1999                               | Societe Europeene des Satellites                   |  |   |
|                       |             | WO 02/073817                                 | 09-2002                               | Nokia Corporation                                  |  |   |
|                       |             | EP 0356096                                   | 02-1990                               | Meyers   |  |   |
|                       |             | EP 0238822                                   | 09-1987                               | NEC Corporation                                    |  |   |
|                       |             | WO 99/20001                                  | 04-1999                               | Silberger et al.                                   |  |   |

| Examiner  | Date       |
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| U.S. PATENT DOCUMENTS |             |                                   |                                       |  |   |
|-----------------------|-------------|-----------------------------------|---------------------------------------|--|---|
| Examiner<br>Initials* | Cite<br>No. | Document Number  Number-Kind Code | Publication<br>Date<br>MM-DD-<br>YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns,<br>Lines, Where<br>Relevant Passages or<br>Relevant Figures<br>Appear |

|           |      | NON PATENT LITERATURE DOCUMENTS   |   |  |
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| Examiner  | Cite | Include name of the author (in CAPITAL LETTERS), title of the article (when   | T |  |
| Initials* | No.  | appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volumne-issue number(s), publisher, city and/or country where published.  |   |  |
|           |      | FANG, T. et al.; "Fourth-Power Law Clock Recovery with Prefiltering", Proceedings of the International Conference on Communications (ICC), Geneva, May 23-26, 1993, New York, IEEE, US, Vol. 3, May 23, 1993, pages 811-815, XP010137089, ISBN:0-7803-0950-2, Section I, Introduction         |   |  |
| c         |      | JANSSEN, G.J.M; SLIMANE, S.B.: "Performance of a Multiuser Detector for M-PSK Signals Based on Successive Cancellation", ICC 2001, 2001 IEEE International Conference on Communications, Conference Record, Helsinky, Finland, June 11-14, 2001, XP010552960                                  |   |  |
|           |      | SLIMANE, S.B.; JANSSEN, G.J.M.: "Power Optimization of M-PSK Cochannel Signals for a Narrowband Multiuser Detector", 2001 IEEE Pacific Rim Conference on Communications, Computer and Signal Processing, Victoria, B.C., Canada, August 26-28, 2001, XP010560334                              |   |  |
|           |      | SOONG, A.C.K.; KRZYMIEN, W.A.: "Performance of a Reference Symbol Assisted Multistage Successive Interference Cancelling Receiver in a Multicell CDMA Wireless System", Conference Record, Communication Theory Mini-Conference GlobeCom '95, IEEE Singapore 13-17 November 1995, XP010159490 |   |  |
|           |      | ARSLAN, H; MOLNAR, K: "Iterative Co-channel Interference Cancellation in Narrowband Mobile Radio Systems", Emerging Technologies Symposium: Broadband, Wireless Internet Access, 2000 IEEE April 10-11, 2000, Piscataway, New Jersey, US, XP010538900   |   |  |

| Examiner<br>Signature | Date<br>Considered |
|-----------------------|--------------------|
| -                     |                    |

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|           | NON PATENT LITERATURE DOCUMENTS |   |    |  |  |
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| Initials* | No.                             | appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volumne-issue number(s), publisher, city and/or country where published.  |    |  |  |
|           |                                 | MAZZINI, GIANLUCA: "Power Division Multiple Access", Universal Personal Communications, 1998, ICUPC 1998, IEEE 1998, International Conference on Florence, Italy, 5-9 October 1998, New York, NY, US, IEEE, US 5 October 1998 (1998 10-5), pages 543-546, XP010314962 ISBN: 0-7803-5106-1 |    |  |  |
| я         |                                 | SALEH, A.A.M. et al.: "Adaptive Linearization of Power Amplifiers in Digital Radio Systems", Bell System Technical Journal, American Telephone and Telegraph Co., New York, US, Vol. 62, No. 4, Part 1, 1 April 1983 (1983-04-01), pages 1019-1033, XP002028354                           |    |  |  |
|           |                                 | RAMCHANDRAN, KANNAN et al.: "Multiresolution Broadcast for Digital HDTV Using Joint Source/Channel Coding, IEEE, Vol. 11, No. 1, January 1993, pp. 6-22   |    |  |  |
|           |                                 | MEYR, HEINRICH et al.; "Digital Communication Receivers – Synchronization, Channel Estimation, and Signal Processing"; John Wiley & Sons, Inc.; 1998; pages 212-213 and 217-218; XP 002364874   |    |  |  |
|           |                                 | MEYR, HEINRICH et al.; "Digital Communication Receivers – Synchronization, Channel Estimation, and Signal Processing"; John Wiley & Sons, Inc.; 1998; pages 610-612; XP 002364876   |    |  |  |

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